

GBP5 Antibody
Rabbit Polyclonal Antibody
Catalog # ALS16833**Specification**

GBP5 Antibody - Product Information

Application	IHC, WB
Primary Accession	Q96PP8
Other Accession	115362
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	66617

GBP5 Antibody - Additional Information**Gene ID** 115362**Other Names**

GBP5, GBP-TA antigen, GTP-binding protein 5, Guanylate binding protein 5, Guanylate-binding protein 5, GBP-5

Target/Specificity

Human GBP5

Reconstitution & Storage

0.1 M Tris-glycine, pH 7, 20% Glycerol, 0.01% Thimerosal. Aliquot and freeze at -20° C. Avoid freeze-thaw cycles.

Precautions

GBP5 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

GBP5 Antibody - Protein Information**Name** GBP5 {ECO:0000303|PubMed:20180847, ECO:0000312|HGNC:HGNC:19895}**Function**

Interferon (IFN)-inducible GTPase that plays important roles in innate immunity against a diverse range of bacterial, viral and protozoan pathogens (By similarity). Hydrolyzes GTP, but in contrast to other family members, does not produce GMP (PubMed:20180847). Following infection, recruited to the pathogen-containing vacuoles or vacuole- escaped bacteria and acts as a positive regulator of inflammasome assembly by promoting the release of inflammasome ligands from bacteria (By similarity). Acts by promoting lysis of pathogen-containing vacuoles, releasing pathogens into the cytosol (By similarity). Following pathogen release in the cytosol, promotes recruitment of proteins that mediate bacterial cytolysis: this liberates ligands that are detected by inflammasomes, such as lipopolysaccharide (LPS) that activates the non-canonical CASP4/CASP11

inflammasome or double-stranded DNA (dsDNA) that activates the AIM2 inflammasome (By similarity). As an activator of NLRP3 inflammasome assembly: promotes selective NLRP3 inflammasome assembly in response to microbial and soluble, but not crystalline, agents (PubMed:22461501). Independently of its GTPase activity, acts as an inhibitor of various viruses infectivity, such as HIV-1, Zika and influenza A viruses, by inhibiting FURIN-mediated maturation of viral envelope proteins (PubMed:26996307, PubMed:31091448).

Cellular Location

Cytoplasmic vesicle membrane {ECO:0000250|UniProtKB:Q8CFB4}; Lipid-anchor, GPI-like-anchor. Golgi apparatus membrane; Lipid-anchor. Cytoplasm

Tissue Location

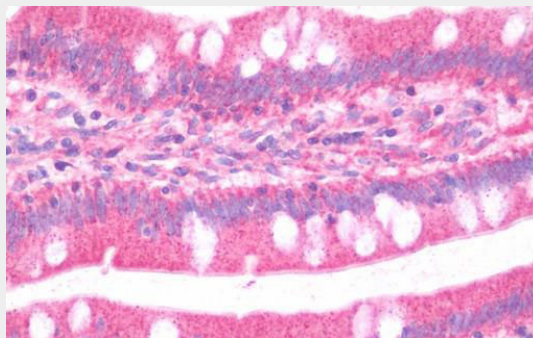
Expressed in peripheral blood monocytes (at protein level).

GBP5 Antibody - Protocols

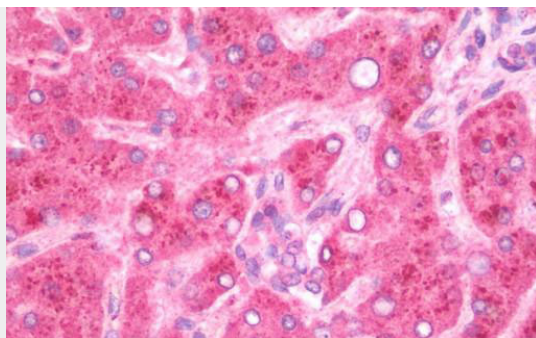
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

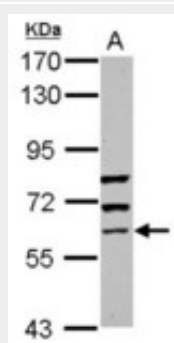
GBP5 Antibody - Images



Anti-GBP5 antibody IHC staining of human small intestine.



Anti-GBP5 antibody IHC staining of human liver.



Sample (30 ug of whole cell lysate) A: HeLa 7.5% SDS PAGE GBP5 antibody diluted at 1:2000

GBP5 Antibody - Background

Stimulates the NLRP3 inflammasome assembly upon bacterial challenge.

GBP5 Antibody - References

- Avdalovic A.,et al.Submitted (JUL-2000) to the EMBL/GenBank/DDBJ databases.
Fellenberg F.,et al.J. Invest. Dermatol. 122:1510-1517(2004).
Clark H.F.,et al.Genome Res. 13:2265-2270(2003).
Ota T.,et al.Nat. Genet. 36:40-45(2004).
Mural R.J.,et al.Submitted (SEP-2005) to the EMBL/GenBank/DDBJ databases.